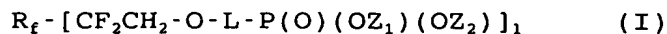


CLAIMS

1. Concentrated compositions comprising the following components:

A) a (per)fluoropolyether phosphate of general formula:



wherein $l=1$ or 2 ;

L is a bivalent linking group, preferably of the $(CHR_1CHR_2O)_n$ type wherein R_1, R_2 equal to or different from each other are selected from H, CH_3 ; n is an integer in the range $1-50$, preferably $1-6$;

Z_1 equal to or different from Z_2 selected from H , alkaline or ammonium cation, di- or tri-alkanolammonium cation wherein alkanol comprises from 1 to 20 C atoms, preferably $1-4$ C atoms, di- or tri- or tetra-alkylammonium cation wherein alkyl comprises from 1 to 20 C atoms, preferably $1-4$ C atoms, or $R_f - CF_2CH_2 - O - L -$;

R_f is a (per)fluoropolyether chain comprising repeating units selected from one or more of the following ones:

- a) $-(C_3F_6O)-$;
- b) $-(CF_2CF_2O)-$;

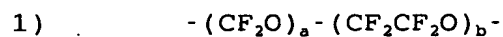
- c) $-(\text{CFL}_0\text{O})-$, wherein $\text{L}_0 = -\text{F}$, $-\text{CF}_3$;
- d) $-\text{CF}_2(\text{CF}_2)_{z'}\text{CF}_2\text{O}-$, wherein z' is an integer 1 or 2;
- e) $-\text{CH}_2\text{CF}_2\text{CF}_2\text{O}-$;

when R_f is monofunctional ($l=1$), an end group is of the perfluoroalkyl type selected from CF_3O , $\text{C}_2\text{F}_5\text{O}$, $\text{C}_3\text{F}_7\text{O}$; optionally a fluorine atom in the perfluoroalkyl end groups is substituted by a chlorine or hydrogen atom;

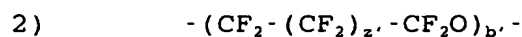
- B) a solvent selected from the following ones:
linear or branched alcohols from 2 to 3 carbon atoms and their corresponding methyl ethers;
linear or branched glycols from 2 to 6 carbon atoms and their corresponding mono alkylethers wherein the linear or branched ether alkyl group comprises from 1 to 4 carbon atoms; dimethoxy-methane acetone;

- C) water.

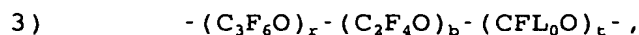
2. Compositions according to claim 1, wherein in the compound of general formula (I) Z_1 and Z_2 are different from $\text{R}_f-\text{CF}_2\text{CH}_2-\text{O}-\text{L}-$; preferably $\text{Z}_1 = \text{Z}_2 = \text{H}$ and $l = 2$.
3. Compositions according to claims 1-2, wherein R_f is of (per)fluoropolyether type and it is preferably selected from one of the following structures:



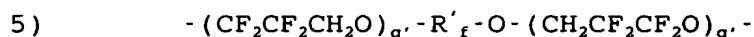
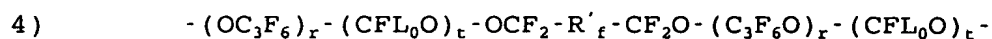
with b/a in the range 0.3-10, extremes included, a being an integer different from 0;



wherein z' is an integer equal to 1 or 2;



with $r/b = 0.5-2.0$ $(r+b)/t = 10-30$, b and t being integers different from 0;



wherein:

R'_f is a fluoroalkylene group from 1 to 4 carbon atoms;

L_0 is selected between F, CF_3 ;



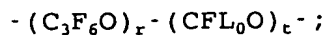
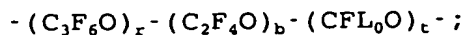
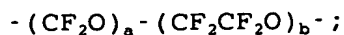
wherein in said formulas:

$-(\text{C}_3\text{F}_6\text{O})-$ can represent units of formula:

$-(\text{CF}(\text{CF}_3)\text{CF}_2\text{O})-$ and/or $-(\text{CF}_2 - \text{CF}(\text{CF}_3)\text{O})-$

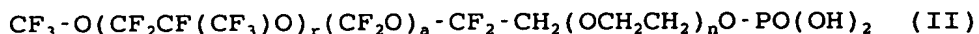
and a , b , b' , q' , r , t , are integers, whose sum is such that R'_f has number average molecular weight \bar{M}_n values in the range of about 300 and about 5,000, and preferably in the range 800-2,500.

- 4 Compositions according to claim 3, wherein the (per)fluoropolyether chain R'_f is selected from the following structures:

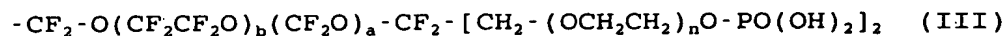


wherein L_0 and the a,b,r,t indexes have the above mentioned value.

5. Compositions according to claims 3 and 4, wherein the perfluoropolyether chain R_f is $-(\text{CF}_2\text{O})_a-(\text{CF}_2\text{CF}_2\text{O})_b-$ and the a and b indexes are as above indicated.
6. Compositions according to claims 1-6, wherein the compounds of formula (I) are those having $L=(\text{CH}_2-\text{CH}_2\text{O})_n$ with $n=1-3$; Z_1 equal to or different from Z_2 is selected from H, NH_4 , or an alkaline metal cation; $l=2$.
7. Compositions according to claims 1-5, wherein the component A is a (per)fluoropolyether having the following formulas:



wherein $r/a=0.5-2.0$ and $n=1-2$;



wherein $b/a=0.5-3.0$ and $n=1-2$;

wherein a, b and r have the above mentioned meaning.

8. Compositions according to claims 1-7, wherein component B) is selected from: ethanol, ethylene glycol, isopropanol, propanol, acetone, methoxyethanol, propyleneglycol, propan-1,2-diol, dimethoxy methane, methoxy-isopropanol,

diethylene glycol, butan-1,4-diol, diethylenglycol monoethylenether, pentan-1,2-diol, diethylen-glycol monoethylether, dipropylenglycol, dipropylenglycol monomethylether, dipropylenglycol monoethylether; still more preferably: ethanol, isopropanol and propylene glycol.

9. Compositions according to claims 1-8, wherein the amounts of each of the components A), B) and C) range from 0.01% to 70% by weight, preferably from 20% to 40% by weight, the sum of A) + B) + C) being the 100% by weight of the composition.
10. Compositions according to claim 9, wherein the percentage by weight of component A) is in the range 20%-40%, that of component B) in the range 30-70% and water in the range 5-30%.
11. A process for preparing concentrated compositions according to claims 1-11, comprising the following steps:
 - solubilization or dispersion with partial solubilization of a (per)fluoropolyether phosphate component A) in component B) at room temperature under mild stirring;
 - addition under stirring, to the previous mixture, of water component C) initially dropwise, so that component A) is not separated from the solvent, dispersing

the drop so that the initial appearance of the solution is recovered before adding the subsequent ones, the water aliquots are gradually increased until the addition is completed, obtaining a limpid solution.

12. Cosmetic compositions comprising the concentrated compositions according to claims 1-10, said cosmetic compositions being under the form of solutions, gels, emulsions, pastes and aerosols for the skin protection against irritating agents, for the hair protection and treatment, for the protection against sun radiations, for detergency, as deodorants, after-shaves, disinfectants for external use, make-up compositions and for the nail-varnish removal.
13. Compositions according to claim 12 containing the perfluoropolyether phosphate of formula (I) component a) in a percentage by weight in the range 0.01-10%, preferably 0.5-5%.
14. Compositions according to claim 13, wherein the concentrated composition is additived with a diluent selected from water, acetone, linear or branched alcohols from 2 to 3 carbon atoms and their corresponding methyl ethers; linear or branched glycols from 2 to 6 carbon atoms and their corresponding monoalkylethers wherein the linear or branched ether alkyl group has a number of carbon atoms from 1 to 4; dimethoxymethane.

15. Compositions according to claim 14, wherein the diluent is water or mixtures formed by water with one or more of the other diluents indicated in claim 14.
16. Compositions according to claims 12-15, under the form of hydrophilic gels.
17. Compositions according to claim 16, wherein the hydrophilic gelling agents are selected from: polysaccharides, preferably cellulose derivatives, xanthan rubber, carruba rubber and alginates; acrylic derivatives, preferably carbomer, glyceropolyacrylates and polymethacrylates; mineral and synthetic silicates; inorganic salts preferably sodium chloride or magnesium sulphate.
18. Compositions according to claims 16-17 comprising other ingredients such as pigments, sun filters, emollient oils (including non functionalized perfluoropolyethers), surfactants.
19. Compositions according to claims 12-15 under the form of soaps, syndet (synthetic soaps) or mixtures thereof; shampoos, preferably containing non ionic and anionic surfactants; and tooth pastes.
20. Compositions according to claims 12-15 under the form of preformed emulsions of the oil/water, water/oil type and gel emulsions based on acrylic polymer emulsifiers such as Pemulen® TR-1 or Pemulen® TR-2.